

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method, comprising:

providing a link transmitter having a plurality of logical channels;

providing a link receiver coupled to the link transmitter, the link receiver having a free buffer pool having empty receiver buffers;

the link receiver providing a plurality of data credits to the link transmitter;

the link transmitter transmitting a packet to the link receiver, wherein the link transmitter takes the packet from one of the plurality of logical channels, and wherein the link transmitter selects from which of the plurality of logical channels to draw the packet;

diminishing the plurality of data credits as the packet is transmitted;

the link receiver storing the packet in a plurality of receiver buffers;

transmitting the packet out of the plurality of receiver buffers at the link receiver;

placing the plurality of receiver buffers into the free buffer pool as the packet is transmitting out of the plurality of receiver buffers;

the link receiver updating the plurality of data credits; and

the link transmitter allocating the plurality of data credits among the plurality of logical channels.

2. (Original) The method of claim 1, wherein updating the plurality of data credits comprises the link receiver transmitting a flow control packet to the link transmitter.

3. (Original) The method of claim 1, wherein updating the plurality of data credits comprises notifying the link transmitter of an empty portion of the plurality of receiver buffers.

4. (Original) The method of claim 1, wherein updating the plurality of data credits comprises adding additional data credits to the plurality of data credits, and wherein the link transmitter selects to which of the plurality of logical channels to allocate the additional data credits.

5. (Original) The method of claim 4, further comprising if the plurality of data credits are diminished before receiving the additional data credits, the link transmitter ceasing transmitting to the link receiver.

6. (Original) The method of claim 5, further comprising wherein if the link transmitter has ceased transmitting, the link transmitter resuming transmission upon receiving the additional data credits.

7. (Original) The method of claim 1, wherein the plurality of logical channels are a plurality of virtual lanes.

8. (Original) The method of claim 1, wherein the link receiver providing the plurality of data credits comprises the link receiver providing the plurality of data credits at initialization of a switch fabric network.

9. (Original) The method of claim 8, wherein the switch fabric network is one of an Infiniband network and a Serial RapidIO network.

10. (Currently Amended) A method, comprising:

a link receiver providing a plurality of data credits to a link transmitter, the link receiver having a free buffer pool having empty receiver buffers;

the link transmitter transmitting a packet to the link receiver, wherein the link transmitter takes the packet from one of a plurality of logical channels, and wherein the link transmitter selects from which of the plurality of logical channels to draw the packet;

diminishing the plurality of data credits as the packet is transmitted; and

the link receiver storing the packet in a plurality of receiver buffers;

transmitting the packet out of the plurality of receiver buffers at the link receiver;

placing the plurality of receiver buffers into the free buffer pool as the packet is transmitting out of the plurality of receiver buffers;

the link receiver transmitting a flow control packet to the link transmitter to add additional data credits to the plurality of data credits, wherein the link transmitter selects to which of the plurality of logical channels to allocate the additional data credits.

11. (Original) The method of claim 10, further comprising if the plurality of data credits are diminished before receiving the additional data credits, the link transmitter ceasing transmitting to the link receiver.

12. (Original) The method of claim 11, further comprising wherein if the link transmitter has ceased transmitting, the link transmitter resuming transmission upon receiving the additional data credits.

13. (Original) The method of claim 10, wherein transmitting a flow control packet comprises notifying the link transmitter of an empty portion of a plurality of receiver buffers.

14. (Original) The method of claim 10, wherein the plurality of logical channels are a plurality of virtual lanes.

15. (Original) The method of claim 10, wherein the link receiver providing the plurality of data credits comprises the link receiver providing the plurality of data credits at initialization of a switch fabric network.

16. (Original) The method of claim 15, wherein the switch fabric network is one of an Infiniband network and a Serial RapidIO network.

17. (Original) The method of claim 10, wherein one of the plurality of data credits represents one of the plurality of receiver buffers being ready to receive data.

18. (Original) The method of claim 10, wherein one of the plurality of data credits corresponds to one of the plurality of receiver buffers being empty.

19. (Currently Amended) A computer-readable medium containing computer instructions for instructing a processor to perform a method of link flow control, the instructions comprising:

a link receiver providing a plurality of data credits to a link transmitter, the link receiver having a free buffer pool having empty receiver buffers;

the link transmitter transmitting a packet to the link receiver, wherein the link transmitter takes the packet from one of a plurality of logical channels, and wherein the link transmitter selects from which of the plurality of logical channels to draw the packet;

diminishing the plurality of data credits as the packet is transmitted; and

the link receiver storing the packet in a plurality of receiver buffers;

transmitting the packet out of the plurality of receiver buffers at the link receiver;

placing the plurality of receiver buffers into the free buffer pool as the packet is transmitting out of the plurality of receiver buffers;

the link receiver transmitting a flow control packet to the link transmitter to add additional data credits to the plurality of data credits, wherein the link transmitter selects to which of the plurality of logical channels to allocate the additional data credits.

20. (Original) The computer-readable medium of claim 19, further comprising if the plurality of data credits are diminished before receiving the additional data credits, the link transmitter ceasing transmitting to the link receiver.

21. (Original) The computer-readable medium of claim 20, further comprising wherein if the link transmitter has ceased transmitting, the link transmitter resuming transmission upon receiving the additional data credits.

22. (Original) The computer-readable medium of claim 19, wherein transmitting a flow control packet comprises notifying the link transmitter of an empty portion of a plurality of receiver buffers.

23. (Original) The computer-readable medium of claim 19, wherein the plurality of logical channels are a plurality of virtual lanes.

24. (Original) The computer-readable medium of claim 19, wherein the link receiver providing the plurality of data credits comprises the link receiver providing the plurality of data credits at initialization of a switch fabric network.

25. (Previously Presented) The computer-readable medium of claim 24, wherein the switch fabric network is one of an Infiniband network and a Serial RapidIO network.

26. (Previously Presented) The computer-readable medium of claim 19, wherein one of the plurality of data credits represents one of the plurality of receiver buffers being ready to receive data.

27. (Previously Presented) The computer-readable medium of claim 19, wherein one of the plurality of data credits corresponds to one of the plurality of receiver buffers being empty.

28. (Previously Presented) The method of claim 1, wherein said transmitting the packet to the link receiver further comprises selecting the logical channel from the plurality of logical channels based on traffic conditions of the plurality of logical channels.